

## Claims

1. A method for applying an electrical insulation to a ferromagnetic body, provided with axial slots for receiving an electrical winding, of a primary element of an electrical machine, in particular to a slotted armature body of an armature of a direct-current motor, in which the body is coated with electrostatically charged plastic powder, characterized in that the coating is done with a great layer thickness by means of direct powder spraying onto the body, which compared to the plastic powder has a potential difference, and the layer thickness to be sprayed on is specified as approximately 1.0 to 2 mm, preferably 1.0 to 1.5 mm.
2. The method as defined by claim 1, characterized in that the coating is done on the preferably grounded body that has a lower potential than the plastic powder.
3. The method as defined by claim 1 or 2, characterized in that for the powder spraying, a coarse plastic powder is used, whose powder particles have a mean diameter greater than 150 µm.
4. The method as defined by one of claims 1 through 3, characterized in that the powder spraying is performed with compressed air.
5. The method as defined by one of claims 1 through 4, characterized in that the powder spraying is performed in a closed spraying chamber (31), with a spray apparatus

(32), which is connected to a high-voltage potential and is equipped with at least one spray location (33) aimed at the body.

6. The method as defined by one of claims 1 through 5, characterized in that the plastic powder is taken from a powder supply by means of suction, and a metered quantity of powder is delivered to the spray apparatus (32) by means of compressed air.

7. The method as defined by one of claims 1 through 6, characterized in that the body, after the electrostatic powder spray-coating, is subjected to a cleaning process, for removal of powder adhering to the surface of the body.

8. The method as defined by one of claims 1 through 7, characterized in that the coated and cleaned body is subjected to a heating process that causes the firing of the powder coating.

9. The method as defined by claim 8, characterized in that the body is cooled after the firing.

10. An apparatus for performing the method as defined by one of claims 6 though 9, characterized by a spraying chamber (31), which is penetrated by a conveyor belt carrying the body and which has a spray apparatus (32) with at least one spray location (33); by a metering device (35), upstream of the spray apparatus (32); by a powder bin (36); and by a pneumatic powder conveyor (38), which aspirates powder from the powder bin (36) and delivers it to the metering device (35).

11. The apparatus as defined by claim 10, characterized in that the powder bin (36) and the spraying chamber (31) are integrated into a common housing (42).